AMERICAN FARMER.

RURAL ECONOMY, INTERNAL IMPROVEMENTS, PRICES CURRENT.

"O fortunatos nimium sua si bona norint
Agricolas." . . . VIRG.

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AGRICULTURE.

☞Editors of newspapers in the state of Maryland, would promote improvements in agriculture and render an acceptable service to their country patrons by inserting the following

PROCEEDINGS OF THE

Agricultural Society

OF MARYLAND,

At their semi-annual meeting, held at the Pavilion Gardens, in the City of Baltimore, on the 7th of June, 1820.

The meeting being organised, a number of respectable names were added to the list of members. A great variety of grains and grasses were submitted to the view of the Society—many of them recently introduced into cultivation, and promising valuable additions to the stock of agricultural productions:—among them were samples of beautiful wheat, imported from the Black Sea and from Smyrna, by Major Isaac M'Kim. Some from Friesland, from Tuscany, from Chili, and the grains of a stalk from the native wheat, discovered in Onedïa County, in the state of New York, and sent by Governor Clinton to the District of Columbia—besides thirty varieties of other grass and grain seeds.

The exhibition of machinery was various and interesting. Besides ploughs upon good principles, there were a threshing machine, worked by hand, capable of getting out about fifty bushels per day; various wheat fans upon different and new constructions; a straw cutter, simple in its mechanism, and powerful in its execution; a turnip and potato cutter, calculated to prepare with ease, these articles as food for live stock; a mill to grind corn with the cob for cattle, worked by hand; a turnip drill; a machine for the sowing of clover with exactness, facility and economy as to the seed; the American cultivator, for keeping clean and in good condition, corn, potatoes and all drill crops—and a great variety of other valuable implements of husbandry.

Some farmers brought with them from their fields, specimens of their lucerne, their orchard grass, their mangel-wurtzel, &c.

The society then proceeded to view a variety of most beautiful and valuable neat cattle. Of these, General Ridgely, of Hampton, exhibited

A pied cow, with large semi-circular horns, of the full bred, Bakewell breed.

A dun bull, fifteen sixteenths of the Bakewell breed, by repeated crossings from an English cow, imported by the late Harry Dorsey Gough, Esq.

And a yearling bull, also fifteen sixteenths of the Bakewell breed, through frequent crossings from a Holland cow, imported by the late John O'Donnell, Esq.

And a large black and white milch cow, with a calf, half Bakewell and half Holland.

Mr. William Patterson, exhibited three cows, two of eight years old, and one of four years old, three-fourths Bakewell and one-fourth Irish blood.—These it is understood, were from a stock imported by Mr. Patterson, and Mr. John O'Donnell. For the bull, 100 guineas was paid to Mr. Bakewell on his farm. For the two heifers 50 guineas each; the three head cost the importers 2400 dollars, delivered here.

Two heifers and a bull, of a breed remarkable for milk, and by which the Bakewell stock has been crossed, were also imported from Ireland by the same gentlemen.

Mr. Henry Thompson, exhibited two red heifers of fine growth, and elegant figure, 2 years old—they were out of cows raised by him from a common breed, by a bull imported from England in the ship Mohawk, for the Honourable Henry Clay, in the summer of 1817; although in very high condition, the Society was assured that they had no other food all last winter but hay, and nothing last spring but common pasture, a fact worthy of notice as it goes to show the nutritive qualities of our natural, as well as of our artificial grasses.

Also, three yearling heifers, all by the Alderney bull imported by Mr. James Creighton, in the summer of 1818.—Two of them out of cows of the country breed, and one (which was esteemed the handsomest) out of a beautiful cow, raised by General Ridgely, being a mixture of the imported Bakewell and Dutch breeds. This cow was presented by General Ridgely to Mr. Thompson, and is a very valuable animal; she is five years old, uncommonly docile, and gives between eighteen and twenty quarts of milk daily.

Mr. W. Gibson exhibited specimens of tares sowed last fall, of very heavy and luxuriant growth.—Mr. Gibson's success in cultivating this grass and the lucerne, prove them to be eminently worthy of more general attention—he showed, also, a beautiful bullock of two years old, entirely white and of large size, from a country cow by the Alderney bull before-mentioned.

The cattle exhibited by Mr. Rusk, consisted of several bullocks, purchased on the South Branch of Potowmac. They were generally and very highly admired, for their uncommon size and beautiful form.

The number of persons present, was much greater than on any former occasion, amongst them were some of our most exemplary agriculturists, whose attendance, together with the lively interest manifested by all present, inspires the hope that the institution will accomplish all the useful purposes for which it was established.

J. S. Skinner, the Editor of the American Farmer, was appointed corresponding Secretary of this Society.

The following address, published by order of the Society, was delivered by the President, R. Smith, Esquire.

The Society adjourned, to meet again on the second Wednesday of October next.

J. E. HOWARD, jr. *Secretary.*
Ag. Society of Maryland.

ADDRESS

To the Maryland Agricultural Society, at the Semi-annual Meeting, in June, 1820; *by the President*, R. SMITH, Esq.

The address, which I had the honour of submitting to the Society at our last meeting, inculcated the expediency of a systematical rotation of crops.—It, at the same time, stated that no system would suit universally; but that every person ought to form one for himself according to the soil, the size, and character of his farm.

In this selection of the proper course, it, among other things, ought to be kept in view.

1st. That grain crops ought not to succeed each other; but that there ought to be an alternate succession of grain and green crops.

2d. That a long course of rotation is more favourable to the soil than a short one, i. e. that a five year's rotation is better, as to the soil, than a three or a four year's system, and that a six or seven year's rotation is preferable to either.

Every plant, finds in the soil, its appropriate food. If, therefore, such plant be cultivated, for a series of years, in the same field, its peculiar nutriment, will, eventually, be exhausted, and, of course, the plant will, in such case, perish with hunger. Hence results the necessity of some change in crops. Of this no practical farmer entertains a doubt. The only question then is, what ought to be this change? or, in technical language, what ought to be the rotation of crops?

The ingredients of the soil, which constitute the nourishment of all farinaceous crops, are homogeneous; and, consequently, wheat, following Indian corn, can have but a diminished portion of the pabulous matter necessary to its perfect vegetation. The same principle is applicable to leguminous—to esculent root and to other green crops. And this principle ought to have a powerful influence in the selection of whatever system of rotation may be adopted.

The earth, by a certain process in nature, has providentially, the faculty of regaining those nutritive ingredients, which it may have parted with in the produotion of a crop. This, however, does not take place immediately. It requires time. To afford, then, the requisite time for such renovation, and to allow the field, in the interim, not to rest but in some green crop, ought to be the primary object in every system of rotation. With this view, the protracted course of rotation and the alternate succession of grain and of green crops are both earnestly recommended. Without this course, the crops may, to a transient observer, appear, upon good land, to have been, year after year, abundant and in quality good; but, upon a more accurate examination and comparison, they would prove to have been, by a perceptible gradation, diminished in quantity, and degenerated in quality.

I have known a square in a garden, which had produced cabbages for a series of years, without the intervention of any other crop, so that, in the end, it became incapable even with the aid of manure, of producing cabbages fit for use. And yet this same square yielded the following year a very good crop of peas and beans. In the language of the gardener, it had become tired of cabbages. But, in the language of truth, the peculiar aliment of that vegetable had been exhausted. Similar complaints are made, as to clover, by some of our farmers, and may be made, as to corn and wheat, by all whose course of rotation has not been sufficiently diversified, and at the same time so short, as not to allow to the soil the time necessary for its regeneration.

Instead of wheat immediately following Indian corn, as is our general practice, it is worthy of consideration, whether there ought not to be an intermediate crop of Swedish Turnips, Mangel Wurtzel, or Potatoes. Besides the immediate relief thereby afforded to the soil, these valuable articles of food would enable the farmer to fatten an additional number of cattle, hogs and sheep for sale, and of cows for the dairy. And these stocks, over and above the profits of their sale and the products of the dairy, would furnish a vast accumulation of manure. Such an accession of manure would necessarily contribute to the augmentation of the succeeding crop, and to the permanent improvement of the farm.

From the increased quantity of manure, procurable under the system of alternate white and green crops, it may be assumed as a fact, that the farm would, in the course of a few years, yield at least twice as much per acre, as it now does under the present impoverishing practice. In that event, instead of the thirty acres, for example, in corn, and thirty in wheat, there would need be but fifteen in each. And as these two fields of fifteen acres each, would yield as much as the two fields of the thirty acres each now do, the corn and wheat crops would, of course, be not at all diminished, whilst the expense of their cultivation would be reduced, in the proportion of 15 to 30

And this difference of expense would form no inconsiderable part of the profits of the corn and of the wheat. But this is not all. The great and essential advantage to be gained is, that the remaining thirty acres would, under this system, be in green crops for the food of an additional number of cattle and other stocks. And it will not escape observation, that all the profits and advantages immediate and remote, arising from the sale of these cattle, hogs and sheep, from the cows of the dairy, and from the great accession of manure, cannot be considered but as a clear gain, resulting exclusively from the proposed green crops, and attended, moreover, with no diminution whatever of the products of grain.

It is strenuously maintained by many practical farmers, that the cultivation of food for the use of cattle and other stocks is as profitable as the cultivation of food for the use of man Be this as it may, it is obvious to every understanding, and it is confirmed by sorrowful experience, that no farm can be profitably conducted unless it furnishes an adequate supply of food for as many neat cattle and other stocks as may be sufficient to produce all the manure necessary to its progressive improvement. When a farm does not furnish the requisite food for this number of cattle and of other stocks, there will, from a deficiency of manure, be a gradual deterioration of the soil, and of course, a gradual diminution of the produce, and of the value of the estate. This annual tendency, from bad to worse, must, inevitably, in the natural course of things, terminate in the utter ruin of the proprietor. Of this dismal, melancholy result, our country, unhappily, exhibits too many illustrations.

Swedish turnips were sowed by me last year, part in drills on the 12th of May, and part broadcast on the 12th of June. Both crops, notwithstanding the excessive heat, and the long continued drought of last summer, were very abundant, and in quality excellent. Those sowed in May were esteemed the best. The roots continued to be remarkably acceptable to the cattle until the 15th of May, when they were all consumed. The affording of green and nutricious food in the spring, when our cattle in general, suffer much, is one of the characteristic recommendations of the Swedish turnips, and is, of itself, sufficient to induce its universal cultivation. So useful and profitable, in my estimation, is this root, that I have just finished the sowing, in drill, of ten acres more than I did last season. The sowing of this year, as of the last, has been performed by a machine, the coulter of which, I this season had fixed in such manner as to make the furrow so deep, as that the seeds were deposited about an inch and a half below the surface of the ground. By such deep sowing, the plant when it makes its appearance above ground has so vigorous a root, that it soon attains the third or rough leaf, and is then beyond all danger from the ravages of the fly. To the fore part of this Drill-Machine, there is attached a very light roller, which smooths and prepares the ground for the coulter, and to the back part, there is a chain, which draws the dirt into the furrow, so as to cover the seed to the depth of about an inch and a half. The roller in returning, presses to the seed, the earth that had been drawn thereon by the chain, and at the same time smooths and prepares for the coulter, the ground of the next furrow. It may perhaps not be amiss to state, that from these deeply sowed seeds, the plants have come up in great profusion.

Ground in good condition, as mine is, has produced from six hundred to one thousand bushels to the acre. The actual produce of my crop shall be accurately ascertained next fall.

The Mangel Wurtzel I have, by way of experiment, sowed this year in manured drills on a small scale. Should this plant, agreeably to my expectations, prove to be productive and valuable, its cultivation by me will, in that event, be greatly extended. My present intention is to cultivate, every year hereafter, the whole of the corn field of the preceding season in Swedish Turnips, Mangel Wurtzel and Potatoes. There ought to be no dread of a redundancy. Every farmer, great as well as small, will find it immensely profitable to increase his stocks of cattle, hogs and sheep, in proportion to his increased supply of green food. The ultimate advantages of such a course of husbandry, are incalculable.

Under this system, there ought to be on every farm, a barn with stables for horses, and cows giving milk; and also open sheds for dry cattle. These improvements ought to be made of dimensions and in a style correspondent to the size of the farm and to the circumstances of the proprietor. Without such accommodations, the crops cannot be preserved and managed to the best advantage; the various stocks on the farm cannot be kept in good condition; and above all, there cannot be so large an accumulation of stable manure. Upon this object, all important in every view of good husbandry, I have expended different sums of money from five thousand dollars to a very few hundred.

I shall, this summer, build a barn, which as to cost and dimensions, would suit the poorest class of farmers in our country, The total expenses, including the materials to be purchased, will not, according to the estimate of my carpenter, exceed $250. This barn will be 40 by 22 feet, with an open barrack, 22 by 14 feet, attached to each end. It will have a threshing floor of 20 by 12 feet in the clear, and 2 stables 20 by 12 feet each. The whole building, barracks as well as barn, will be under a good roof of the best shingles. This statement, apparently trivial, I have deemed it not amiss to make, merely because it goes to shew, that it is in the power of every farmer to have a barn that would answer all the purposes of good management. A person capable, as every farmer is of performing by himself and his people much of the work, would necessarily find the cost to be greatly diminished.

If in our husbandry, there should be adopted a methodical rotation, comprising an alternate and protracted succession of white and of green crops; and if, on our farms, there should be erected suitable barns, stables, sheds and barracks, then will there, assuredly, be on every such farm, a competent supply of food for as many neat cattle and other stocks, as may be necessary to produce all the manure required for the best cultivation of such farm; then will all such food be administered to the best advantage, with the utmost convenience and without any kind of waste, and then will our stocks of every kind be carefully preserved and gradually improved. In such a favorable state of things, we shall have the consolation of beholding the progressive improvement of the soil, and of the stocks of our country; an improvement which in its progress and in its result, cannot fail to ensure to us our full share of all the happiness, which the good things of this world can bestow.

FOR THE AMERICAN FARMER.

ON THE USE OF

Marle as a Manure.

Proofs of its abundance and efficacy, on the Eastern Shore of Maryland.

Dear Sir,—I have obtained the enclosed paper, containing a letter from Mr. Singleton, to Judge Tilghman, from my friend T. C. Earle, Esquire. on condition that you will return it to him, or one of your papers containing it, should you think proper to re-publish it.

Although this letter has been before published, I am well assured it will be very acceptable to many of your subscribers in this state, and perhaps elsewhere. This worthy old gentleman was the first I believe in this state, who used marle, and thus brought this valuable treasure from the hidden bowels of the earth, into useful and profitable operation. His example is followed, and his success emulated by some scores of enterprising and spirited farmers, who bid fair, if perseverance continues, to be an ornament to their vocation. An immense bed of this valuable fossil abounds on our shore, running from the mouth of the Choptank, in a north east direction, to the vicinity of Wilmington. According to the celebrated Cuvier, Mitchell and other geologists, these fossil remains are found in almost all parts of the world; and in none perhaps are they more accessible than on this peninsula, owing to its small elevation above the sea: I may also add perhaps, that no soil is more benefited by the application of calcareous manure.

We *Eastern* Shoremen, my dear sir, have besides, another motive for wishing Mr. S's letter again published.—To shew that we have had at least one farmer whose skill and enterprise was of the first order, and who practically demonstrated that the lands here are as capable of *rapid* and high improvement as they are any where.

Our climate and our soil, have long been a subject of misapprehension and sometimes of derision, by persons who never *felt* or *saw* the influences or power of either; and Baltimorians particularly, used formerly to exercise a sort of prescriptive right to this rare enjoyment. The complete interruption however of our commerce during the late war, *with the city; effectually corrected this error* and it is with much astonishment and regret, that we find such men as Mr. Maxcy, lending his intelligence and eloquence to disseminate an error which he certainly could not have acquired from personal observation.

Gentlemen who have never seen this shore, are very apt to consider it a continuation of *marsh, sand-hills*, and *pine barrens*, and when they happen to visit the marly region before noticed, and find neither of these great imaginary bug bears, they express as much surprise, as if they had fallen on another planet.

Taking an aggregate view of this marly region, embraced between the Choptank river and the high lands about Elke, and it may be found that for its *extent, no tract* of country in the Atlantic states has been more liberally fertilized and contrived by the hand of nature: none more cruelly treated at the hands of man; and none possessing more extraneous means of restoration, by shell marl, oyster shells and sea ores.

Very truly yours,

THOMAS EMORY.

20th May, 1820,

FROM THE EASTON GAZETTE.

ON THE IMPROVEMENT OF

Land by the use of Shell-Marle.

Talbot County, Md. Dec. 21, 1817.

Dear Sir,—I received your letter of November 10th, by post, and should have answered it sooner, but it has not been in my power. For twelve months past my health has been very precarious; I have not, in that time, been as far as Easton on any business. The whole, almost, that I am capable of doing, is to ride out on my farm, in good weather, for exercise, and to see how the business is carried on; and I can scarcely at times even write my name legibly, and very seldom can write a letter. Your goodness will therefore excuse my seeming inattention to you. I will endeavor to answer your inquiries as well as I can, and it will give me pleasure, if my answers are such as may be satisfactory to you.

Your first question is whether what I use be marl, or soil mixed with shells.

Whether it be marl or not, I will not pretend to determine, as I have seen no description of marl that answers exactly to it; but Mr Tench Tilghman informed me, he had seen a description of marl used in Scotland, exactly similar to what I use on the farm on which I reside, and which is the improved land you mention. I have not seen the account myself.—However, this, and all mixtures of broken marine shells, of which there is a great variety, are now denominated marl, here. What I consider the best, and which I most use, is composed of small parts of marine shells, chiefly scallop shell, about one-eighth of an inch square, or somewhat longer or smaller, with scarce any sand or soil with it; some of it seems to be petrified, and is dug up in lumps, like stone, from four or five, to forty or fifty pounds in weight, hard to break with the edge of an axe, and will remain for years tumbled about with the plough before it is entirely broken to pieces, and mixed with the soil; indeed you may observe it in some parts of the bank, where the soil has been washed from it, appearing like rock-stone; but if broken and pulverized a little,

it effervesces very much with acids. It lies from three to five and six feet deep, from the surface of a light or sandy soil, on the banks of the cove, but how deep the marl, or bed of shells goes, we cannot ascertain, having never dug through it. When we get from two to four feet deep into it, the water springs, so that we have never gone deeper, but fill up the hole with the surface soil, and open another. It does not lie level, but waving, sometimes dipping so deep that we lose it; nor is it of one colour, but some white, like dry mortar, some the colour of yellow ochre, some red, like red ochre, and some blueish: but I do not know any difference in the quality, from the colour.—In digging it is generally loose and crumbly, but mixed with hard lumps as above described: we find sometimes whole shells of scallop, oyster, and barnicles. The kind I estimate most, is of the foregoing description, and I am of opinion it lies at different depths, under the whole of this peninsula, which has been gained from the water, and that the shells are of the different kinds of fish which inhabited the waters while they covered the land. In some places, at heads of coves, I have traced the shells by cutting a ditch from three to five feet deep, down the valley, and even through the marsh, till I came to tide water; but in this kind of low ground there were more whole and larger shells, and none of the large, stone-like lumps above-mentioned. It appears as if it had been the bottom of the creek, and as if covered by the water more lately than the first described: all these are on this farm. At my other farm, where my uncle formerly lived, and which is at the head of this creek, I find it by digging deep into the ditches, in the meadow ground, which empty into the head of the creek: but that kind differs from what I have here; as, besides the scallop shells, which are not so much reduced as here, there is, for perches together, the clam shell, perfectly whole but so soft, that when thrown out of the ditch and exposed to the air, they soon fall away to powder: but the scallop shell seems most abundant; and of this kind of shell-fish we have no knowledge. The beds of shell are to be discovered in many places, on the edges of the creek, and even out into the water: and are found throughout the county, in most places where carefully sought for, but generally, I believe a good deal mixed with sand. However, I have no doubt they may all be usefully applied as improvers of the soil: they are now coming into the use of many persons in this county, who have discovered them on their land, and have adopted a regular system of manuring.

Your next question is, to what kind of soils, and how is it applied; as a *top dressing*, or *ploughed in?*

I have applied it to all the soils on my farm, some of which is cold white clay, and wet; others a light loam, and sandy. I find it useful to each kind, and manure my land all over with it, without distinction, and to advantage; putting a smaller quantity upon the looser soils. I have applied it as a top dressing on clover, and also where clover has not been sown; with a view of improving the grass, and also to be satisfied whether it would not be best for the ground, to let it lie spread on the surface for a year before the ground was put into cultivation: but it has not answered my expectation. I could not perceive any advantage from that mode of application. I now constantly apply it to the ground cultivated in corn, carting it out in the winter and spring, and putting on from twenty to forty cart loads per acre, according to the ground, and the previous quantity that had been put on, in former cultivations, dividing each load into from four to eight small heaps, for the greater ease in spreading, according to the size of the load,—Some is put on before, and some after the ground is broken up, but it is all worked into the soil by the cultivation of the corn, and it never fails of considerably improving the crop of corn, as also the ground wherever the marl is, especially in largest quantity.—There is a small green moss, and black moist appearance on the surface of the ground, when not cultivated: as you perceive about old walls, and in strong ground. Though the preceding is the common mode in which I use the marl, I do not think it the best: I mix some in my farm yard, with the farm yard and stable manure; and would prefer mixing and applying all that I used thus mixed, but for the labour of double cartage, which I cannot as yet accomplish, manuring so largely as I do. I cultivate one hundred acres yearly, and constantly manure the whole of what I cultivate; employing only four carts, and four hands with the carts, which do all the manuring and carting on the farm.

Your next question is, what has been my rotation of crops, and mode of cultivating, since I have used this manure?

Since I began to use the marl, and bend my attention to improvement by manure, I have cultivated only corn and wheat, sowing my ground in clover, and using the plaster. Instead of cultivating all my ground in corn, and sowing wheat on it as heretofore, I divided my cultivation into two parts of fifty acres each, putting one part into corn, which I was able to accomplish manuring time enough for the corn, and making a fallow of the other part, manuring as much of it as I could accomplish before the time for sowing wheat; and disregarding, in a degree, all smaller crops, which I could not attend to as an object, without increasing my number of hands, and interfering with the main business. I went on in this manner, till I found I could easily accomplish manuring one hundred acres and upwards per annum: having got my ground to that state that I can risk making a crop without manure, I am now about discarding fallow, being able to manure my whole hundred acres time enough for cropping in the spring, by beginning to manure for the next year as soon as the spring manuring is finished. I shall in future have no wheat in fallow, but sow it after corn and other crops, from which I am satisfied I can make more from my ground than by naked fallow, which I always considered unprofitable, though you made more wheat, except for the advantage of having more time to manure. The standing annual force on my farm, is eight hands (men) with one hired by the month: of these hands four are employed with the carts; two in ploughing, harrowing, &c. for the cultivation of the crop; and the other two or three, as may be, do the blacksmith's and carpenter's work, as also the fencing and other work, necessary on a farm; the six hands employed with the carts and ploughs, are not taken off for other business, except in the time of harvest, and sowing wheat, when they are probably stopped. *I do not work so much with the plough as formerly, but more with the harrow, which lessens and quickens the labour of cultivation, keeps the ground cleaner, and, I think, in better tilth.* Occasionally I hire or employ some women, for hoeing work and spreading manure; I flush my ground in large lands, and harrow and roll as it may require; then, instead of listing, as common, mark it out each way with a plough, *very shoal, so as not to disturb the grass ploughed down*, and after dropping the corn, cover it with the plough or harrow, *and immediately put in the harrow*, keeping it going, as the weather will permit, till just before harvest, when we plough the ground, and finish the cultivation with the harrow, except something should occur, making it necessary to plough again after harvest. This I have found the best mode of cultivation for corn, I plant my corn about four feet apart each way, and have from three to five stalks in a hill or cluster, for I endeavour to keep down the hill, and have the ground *as level as possible*. In saving my corn crop, I cut it up, without pulling it from the stalk as usual, and cart it in altogether, then husk it out, leaving the husk to the stalk: I lay these near my feeding yard, and throw them into it twice a day: this gives us a large quantity of strong healthy food for the cattle, which serves them all winter, and keeps them in good condition, without any other food; makes a large quantity of excellent manure, and a fine dry feeding yard. As opportunity can be found, we cart marl, fuller's earth, clay, &c. in good soil that is convenient, into the yard, which being mixed with the stalks, and straw, or any thing else, penning the cattle on it through the winter and summer, instead of penning on the field, in the common way, we have a large quantity of manure to go out in the fall, and next winter; it is put into the field, in the intermediate rows, between the rows of marl, as far as it will go, and they all get mixed in the cultivation. We also convert the scouring of our ditches, the head-lands of the fields, and all waste-ground that we can, into manure, by carting litter from the woods, yards manure, or litter, &c. &c. and mixed with them; so that I can nearly, or quite, now accomplish making farm-yard and this kind of manure, sufficient to go over my whole hundred acres, annually. For the two last years, I have made more manure than I could accomplish or effect carrying out, though I have manured from ten to twenty acres more than my hundred each year, with part marl and part farm-yard, but not the whole with both, as I hope to be able to do in future; but it will be necessary to increase my carting force to effect it, and I clearly see, I can raise sufficient manure for the purpose; heretofore I have manured my corn-ground, fifty acres, with marl and my fallow with part farm-yard manure, and part marl, as mentioned before; so that you will perceive the improvement made on my soil *has not been affected by marl alone*, but in conjunction with farm-yard manure, clover, and plaster, and *by making it a point to manure with something all the ground I put into cultivation*; so that every time I cultivated a field, that field was improved, and not in any degree impoverished by the cultivation. By this means, and the Divine assistance, I have effected that improvement of my farm, which is so very striking to the observation of every person acquainted with it. I can say nothing as to the comparison of crops, before and since my improvement; it has been a progressive thing for many years, and, till I adopted the present plan, I was an experimental farmer trying every thing I met with in books, or heard of; so that there is scarce any rotation of crops, or mode of cultivation, but what I have tried.

This, I believe, will answer all your questions, except as to the time when I began to use the marl, and how soon I experienced the beneficial effect of it? being your fourth question.

In August, 1805, in digging down a bank on the side of a cove, for the purpose of making a causeway, I observed a shelly appearance which it struck me might improve clay soil; I took some of it immediately to the house, and putting it into a glass with vinegar, found it effervesced very much; this determined me to try it as a manure; accordingly, in September, I carted out about eighty cart-loads, and put it on a piece of ground, fallow, preparing for wheat, trying it in different proportions, at the rate of from twenty-seven to about a hundred loads per acre, and, the ground was sown in wheat: I could not myself, be satisfied that there was any difference through the winter and spring, although general Lloyd, who was viewing it with me in the spring, thought he could perceive some difference, in favour of the marl; but at harvest time, the wheat though not more luxuriant in growth, or better head, was considerably thicker on the ground; and, after the wheat was taken off, the ground where the marl had been put was set, with white clover, no clover being on the ground, on either side of it. The next year, 1806, I discovered it in the drain into the head of the cove, which I immediately ditched, and from the ditch put out seven hundred loads, on the fallow ground: the effect as to the wheat and clover, was the same, (this was put for experiment, at the rate of from forty to a hundred and twenty cart-loads per acre,) though the marl was not of the same kind as the other, but more mixed with sand and surface soil being taken from the low ground, by ditching, and all mixed together. I also tried it on corn ground, spread out as above-mentioned, and found the effect immediate, as to the corn, and in the same manner as above described, as to the wheat sown on the corn ground; this induced me to persevere in the use of it, which I have done ever since, adopting the mode I mentioned before putting it at first from forty to seventy loads per acre, till I have now come down as low as eighteen or twenty loads per acre, going the third time over the ground with it.

I believe I have now answered all your inquiries, as well as I can, except as to the average comparison of the past and present crops, which I cannot well do, for the reasons above given, and also that my fields are entirely changed, neither containing the same grounds, nor the same quantity of ground in

each; but I believe I shall not be much out of the way, if I say that I think the soil now capable of producing between two and three times as much per acre, as it would before I began to use the marl; and though the marl has not solely produced the improvement, yet the improvement would have been far short of what it is, if it had not been for the marl, which has contributed, in a very large degree, towards it; and no small matter in favour of the marl is that, by the blessing of God on my endeavours, I have, in twelve years, been enabled to improve three-hundred acres of ground, to the pitch that these are, and am now in a fair way of increasing in the same ratio that a snow-ball increases as it is turned over.

I fear you will not be able to read, and hardly to understand, this tedious letter, in many parts; if you can, and it is in any degree satisfactory to you, I shall be compensated, and will cheerfully answer any inquiries, in future, that you may wish to make.—The first favourable opportunity, which may probably be by some friend in the spring, I propose sending you a small bag of marl, which may be more satisfactory than any description.

With every sentiment, &c.

JOHN SINGLETON.

Hon. WILLIAM TILGHMAN.

FOR THE AMERICAN FARMER.

ON THE CULTIVATION, MANAGEMENT, AND EMPLOYMENT OF

Cotton.---No 4.

It appears from respectable oral information that a species of cotton, till lately unknown to us, has been introduced into *Louisiana*. It is called the *Mexican* cotton. It is found to ripen, in a greater degree at one time: has a shorter season than any other cotton known among us: and is collected in much greater quantities, by a labourer, in one day. The cotton wool is represented to hang out of the pods of this species of the plants, and even to drop at times from them. It is recommended to travellers from the other cotton states into Louisiana and the whole south west, to inquire into this matter and procure seeds and instructions for the culture of this new description of the very important cotton plant. Those who have a knowledge of it, would serve the cause of agriculture by communicating information to the Editor of "*the American Farmer*" of Baltimore.

It is the opinion of respectable planters in the upper part of the country acquired by the Louisiana purchase, below 31° north latitude, that the proper sea Island cotton seeds of the Georgia, and Louisiana gulf coast will produce cotton of a very superior quality, without degenerating. But great care must be taken, as to the selection of the soil not rich, and as to the method of cleaning this cotton or freeing it of the seeds. If it be sown in a rich soil, it runs up into a high bush or growth, does not flower or pod in time for the season, and is destroyed by the weather and frost. The lightest soils are therefore to be used in planting the sea island cotton, in the 30th degree of north latitude or higher in order to insure early blossoms and pods, and product in the crop.

The gin to be used is of the utmost importance. The saw-gin must not be used, for it puts the long fibres of this cotton into a form and condition, for which the manufacturer's cotton machinery, in Europe, either for the short bowed and saw-gined cotton, or the long cotton cleaned by rollers, is not fit. Excellent cotton, from sea island cotton seed, cleaned by the saw-gin, has been refused by the manufacturers, at its value, for this reason, that it was not cleaned by the proper gins or rollers for long stapled, silky, fine sea island cotton.

It is highly important to the cotton planters to examine well into the means of promoting *the use* of cotton, at home and abroad. The writer of this paper has seen a cotton chamber garment, of a twilled texture like an English kersey, which was first used in January, 1803.—It is now fit for the same use. The ground is a double or treble twill. The substance was and remains stout. Millions of yards of this kind of goods of various dyes, and white and unbleached, might be profitably consumed in garments for men and boys, for women's skirts, for bed and cradle covers. The cotton blanket, or of cotton and wool, has been before mentioned. Nine millions of people in 4,500,000 double beds with two blankets of 3¼ pounds each, would occasion the use of cotton, allowing 10 per cent, for waste to the amount of 34 to 35,000,000 of lbs. If the British bury their dead in woollens, by law to consume their sheep fleeces, our good sense ought to instruct us to keep ourselves warm with our redundant cotton. It is earnestly repeated, that since we have not half wool enough, since our wool is much higher than that of Europe, and since we have none of the English Lincolnshire, and Leicester mixed sheep's wool, the former of which is worth in England only seventeen cents, we ought to import or make strong *substitutes* for the common woollens of Europe out of our low priced, common and short cotton, which is produced at low and falling prices. Lest the European and American manufacturers should be led to enter into a competition, to supply us with every variety of common, heavy, strong, coarse, useful cotton goods in lieu of woollen goods. In the severest weather of the north a stout corduroy, velveret, or cotton kersey, lined with woollen flannel, would be abundantly warm.—It is once more suggested, that importations of cotton blankets, cotton swanskins or molletons, or cotton twilled kersey, and petticoat stuffs, common, fine and superfine, ought to be made by our southern agricultural societies, by way of samples for future imitation. The common dyers iron water (being the ordinary ley of wood ashes, with the clean fragments of any iron steeped in it,) would make a very firm and lasting cinnamon coloured die, for stripes, mixtures, and entire colours, costing nothing and for all uses. Those who expect us to use their manufactures should use our raw materials, and give us goods profitable to our agriculture.—Let some respectable planters order out Kendall cottons (negro cloth) now made of wool, but to be made, as formerly of cotton, by way of experiment. The aggregate weight and consumption of these stout, useful, heavy goods, would be very great in every year. In order, to estimate it we should remember, that the weight of the Lincolnshire quality of coarse blanket and kersey wool is equal, every year, to 33,000,000 lbs. in Great Britain. Before we conclude this head of our subject, we must ask leave to urge strenuously to our cotton planters, and to all who believe, that the encouragement of cotton planting is highly beneficial to all our cultivators, that the most steady care be taken to use cotton substitutes for woollen, silken, flaxen, hempen and leathern goods, in our apparel, furniture and other uses.

The restoration of our *Indigo* culture, is of great importance to the consumption of cotton at home and abroad, as are the growth of woad, madder and other dye stuffs. *The chemistry of our agriculture* requires that our planters be improved in the manufacture of the indigo paste, or colouring matter. It has been taken up in India with success, by British artists, who had no knowledge of any congenial business, except the growth and preparation of woad, which succeeds to utility, in North Britain. The woad plant is in a small degree *indigoferus*.

There are many occasions to know and use the knowledge of *the weight* and *measure* of the cotton seed produced by an acre of land, of the black seed cotton and of the green seed cotton, after they have been separated from the cotton wool. Curious planters may furnish us with the facts, and state also the quantity of clean cotton produced by the same quantity.—Facts, well as certained, are so often applicable, to producing sound results, that this information as to the weight and measure of cotton seed, is very much to be desired. If 1000 lbs. of cotton in the seed give 300 lbs, of cotton and 700 lbs. of seed, then our whole crop, computed at 120,000,000 lbs. of clean cotton, would give 280,000,000 of pounds of seed, which, at 50 lbs. to the bushel, would amount to 5,600,000 bushels. The quantity used per acre, computed upon our whole cultivation of 1,000,000 of acres of land in cotton, at 120 lbs. of clean cotton wool per acre, would be an important object for consideration and correct estimation. The ordinary or best uses of our whole quantity of 280,000,000 pounds of cotton seed merits statement.

The unforced growth of manufactures in the United States, as proved by the digest of the returns of the Marshals and territorial Secretaries in A. D. 1810, before the double, the war and the present duties, with the acquisition of machinery since that time, clearly prove that home manufactures, *so enforced*, have supported and will continue to support our agriculture; labour, skill, provisions, forage, fuel, rents, grounds, buildings, materials and *raw materials in the cotton branch*, are reduced in prices so as greatly to benefit the home manufacturer; and as our imports are lessened, according to American and British evidence, one half, or 60 per cent. perhaps of manufactures 66⅔ per cent. or two thirds of our two largest former years, good, sound, common cotton goods, must be manufactured with increased advantage both in *households* or *families*, and in great and complicated manufactories. Since no wool, flax, hemp, silk, or hides and skins, are exported, it follows, that all those raw materials, produced or imported, are manufactured. And it is manifest, that we can only rapidly impede *cotton* of all our raw productions. We do not argue here in favour of the present duties, or any increase of duties; we only say, that many present circumstances favour our *cotton* manufacture and the production of that important crop and material.

COLUMBIANUS.

The following communication, on some points of especial interest to all persons concerned in husbandry, confirms an old impression with us—that the most enterprizing and skilful cultivators of the soil are not always those who have been from their infancy regularly trained in the practice of agriculture. That in short, the best farmers, have been men of *science* and of *travel*, whose minds untrammelled by a certain routine of fixed habits, leaves them the capacity to exercise their reason on all occasions (without "favour or affection" in behalf of this system, or that implement, in preference to another,) carefully examining all, and holding fast upon " that which is good."

An anecdote in point, was related to us by a friend, who recently crossed the peninsula, between the Delaware and Chesapeake. Wherever he saw a farm remarkable for neatness and economy of arrangement, and cultivation—out-buildings and fences of appropriate construction and in good condition: gates well made, properly hung, and painted; trees trimmed up handsomely—in short, where the whole concern wore an air of thriving industry and enterprise; it turned out, in most cases, to be the farm of a lawyer, or doctor, or some person who had, in early life, followed some *other* study or pursuit.—So uniformly was that the case, that, passing a handsome establishment he asked the driver, to what doctor does that handsome farm belong? Why, said the driver smiling, "you seem to take it for granted, it must be a doctor's! to tell the truth then that's Doctor Black's."

The article which follows, though coming to us anonymously, as well from its singularity as from the *jeux d'esprit* which enliven it, we take to be from one of our sons of the ocean—" distinguished by daring enterprise and fertility of genius;" and if our conjecture be correct, all we wish him is, that his toils on one element may be as profitable to himself, as they have, on another, been honourable to his country. The harvests reaped by the sickle, if not as glorious, are generally more solid and useful, than those which are gathered by the sword.

Strange as it may appear at the first suggestion, there are probably few callings which better prepare a man to make a good farmer, than the life and experience of a *sea Captain*. Observing the nations and customs of every clime, absolves his mind from the dominion of prejudice, that great barrier to light and improvement in every thing —He compares all practices and projects, and selects the best, and the habits of *exact discipline* and punctuality, the allotment of particular times and places for every, the most minute thing on board ship, when transferred to the management of a farm, can hardly fail to produce the best results.

TO THE EDITOR OF THE AMERICAN FARMER.

SIR,—For some time back I have been on the point of making to you some communications on subjects connected with agriculture, horticulture, &c.; but have been deterred from doing so, from the apprehension that my writings would not be sufficiently polished to go before the public; but reflecting that they would be read mostly by farmers, who in general look more to the matter than the manner, and prefer useful facts to beautifully rounded periods and fancied expressions, I determined on the whole to get over my scruples, and give you the facts of my experience, and in my own way too.

My farm consists of about one hundred acres "more or less." I have about five acres in a garden, in which I raise vegetables suitable for the market, for I live within less than two miles of one, where there is a demand for all my surplus produce.

I keep a dairy also, consequently have some portion of my grounds in clover, and other grasses.—I pursue the ordinary modes of rotation, raising corn, wheat, rye, clover, &c. &c. &c.; but in these operations I have been troubled with many pests well known to farmers.—Cut-Worms destroyed my corn, I was obliged to replant it over and over again, until the season was lost, and I gathered nothing but nubbins. They destroyed my cabbages, until both my patience and my stock of plants were exhausted; worms and insects of various kinds infested my garden, my vines, my orchard, &c. and every time my grass grounds were broken up, fresh torments attended me through a profitless season. I began to look around to see what was to be done, some remedy, said I, must be applied; for these devils, these natural enemies of mankind, this bane of our happiness, there certainly must be some antidotes, they must also have *their* enemies, *their* destroyers; nature never intended that they should remain useless after thus gorging themselves to fatness. While these things were running in my mind, I noticed the children and gardener driving away the wrens and blue birds which were hopping about the garden, and as they supposed, picking up the seeds: but in watching more closely, I observed that they were after the insects which infested the plants. I immediately directed twenty or thirty wren boxes to be put up in different parts of the garden, they were soon taken possession of, and their inhabitants are the most useful force employed there, and I have never had a cabbage or any other plant cut down or injured there since they were erected and occupied. You may see the little creatures hopping from plant to plant, closely examining every one, and wo betide the bug-worm or caterpillar, who dare show his ugly face when they are abroad! They are early risers too, at dawn of day you may hear them twittering at their work. I leave my garden therefore, to the care of my wrens, and shall now proceed to show how I protect my corn and vines. I do it simply by feeding the worms, and inviting the crows and black birds; I cannot place houses for them, but I give them every inducement to come, and never suffer them to be disturbed; they seem to be sensible of their security, for you may see them in numbers following the plough, and picking up the worms from the fresh ground, as it is turned out of the furrows, and show no alarm on a near approach to them. They also destroy field mice, &c. &c.; but do they not destroy your corn? I answer no? I put plenty for them to eat.—After my corn is planted in drills, I sow between the drills broad cast, at the rate of between two and three bushels per acre, and harrow it in.—This is for the worms and crows, &c.; not that I suppose they would prefer it to that which is planted to stand, but they are just as likely to eat one as the other, and there is this difference, that if there was no corn sown between the drills, all in the drill would be eat up; but, as there is enough elsewhere, a great proportion of that in the drill escapes. Then when the corn is as high as the knee, I send men into the field with spades, and when any is missing, I make them dig a hole, then take up a spade full of dirt with two or more of the most healthy stocks of corn, and place them in the hole, observing to place them in the same position in relation to the compass as they occupied before; the dirt is then packed down with the feet, all is safe, and there is not the least stoppage in the growth of the plant. My pumpkins are in my corn field—not in the rows of the corn, they have rows to themselves. My corn field is in my young orchard this year, planting in drills, of course I can only plough one way, and cannot plough at all in the row of trees; this space then is occupied by my pumpkin vines at 10 feet apart, and around the hills the corn is strewed pretty thick, it soon shoots up and shades the hills, and the bugs and insects which are the greatest enemies to them) will not go in the shade, consequently they are protected—first, by the inducement which the worms have to eat the corn—secondly, by the shade which the corn affords them. This corn is of benefit to the vines in another way; it extends its long leaves far beyond the limits of the pumpkin hill, and at night receives the dews of heaven, which they conduct as in spouts to the roots of the vines—in the morning you will perceive them wet when the neighbouring ground shows no moisture. But you will say, how do you get clear of all this surplus corn? I cut it down for my cows, that is, as much as I want, and the rest I plough in to make manure, by running my plough twice each way, turning the furrow from the corn which is in the drills. I completely bury that which is between the drills, and in a short time it rots, and I have a fine ridge of compost laying between the drills, to turn over towards them, which I do by running the shovel plough through the ridge. " The proof of the pudding is in eating it"—and the best test of the efficacy of my plan, is the appearance of my corn field. Thus it is this 29th day of June, corn as high as the waist, and not a stalk missing. Old *clover land*, part ploughed in the fall and winter, and part in spring.

The corn on my pumpkin hills cannot be ploughed in, *that* I pull up by the roots, and a better cultivation of pumpkins I never had, than is given by this pulling up of corn, which leaves the ground not only clear from weeds, (which have been smoothered by the growth of corn) but loose and light to receive the rains and dews, I do not however yet deprive my pumpkins of the benefit of their friend the corn, for I lay it around the vines to protect their roots from the scorching rays of the sun.

I am now preparing to put in my turnips. I observe some correspondent of yours the other day, asks how to protect them from the fly—I answer *sow corn*—which will shade them, and the turnip fly was never known to go in the shade. When the turnips are safe from the fly, destroy their friend the corn, by cutting him down or tearing him up by the roots; the latter is preferable, as corn will shoot again after being cut—besides corn, sow with them any thing else that the flies will eat, such as radishes, cabbages, Hanover turnips, &c. &c. and cut them up when you no longer want them.

Excuse this long rigmarole, and accept the best wishes of your friend,

June 20th, 1820. JEREMIAH SIMPLE.

P. S. I had like to have forgotten to mention that a friend of mine lately from Spain, made me a present of some choice seeds a few days since, from the Botanic Garden of Ferdinand—of course they were highly acceptable—and when I came to look over their names, I thought

myself in possession of a treasure. So I mustered up all the flower pots that my maiden aunt, Simplicity, had carefully stowed away for preservation, in the cellar, and after filling them with fresh earth, carefully planted my seed and put labels to each. There was, *Rumix—Egyptianus—Phlonis—Lychintis—Anthenis Maxetima—Sinapis Diriota—Marubium Scrophularii—Lavatua Mivaus*, and various other high sounding names, but as some of them had the appearance of old acquaintances, I thought I would take a look at M'Mahon's catalogue, and see if I could make out what they were in plain English. My *Rumix* turned out to be Dark Mud! My *Phlonis*, sage! *Sinapis*, mustard seed! *Marubium*, horehound! My *Lavatua*, something like a Hollyhawk, and my *Athenis*, camomile, or rather a thing that children have another name for, and although they nine times out of ten deserve the name themselves, never like to be called by it. Thus it is that what we most despise here as more than useless, is cultivated with care in Europe, and our most noxious plants are returned to us as treasures, and perhaps too in a degenerated state. Something like some of our dashing young Bucks who visit Europe to be refined and return to us rather *greater fools* than they were before they left us. J. S.

FOR THE AMERICAN FARMER.

HEDGES.

Stateburg, S. C. June 16th, 1820.

JOHN S. SKINNER, ESQ.

Sir,—The tenth number, (Vol. 2) of your American Farmer, contains some excellent remarks in a letter from Mr. Rowand of Charleston, on the cultivation of a species of rose for hedges. This letter I have read with great pleasure, because I have long considered this plant, of all others yet tried or known in this country, as best fitted for the purpose of making a strong, impenetrable, and durable hedge; and am glad to see an attempt made to spread a knowledge of it, by one who has been so successful in cultivating it. But the rose which Mr. Rowand describes and wishes to see propagated, is not the *Multiflora*, and I hope the importance of the subject will he considered a sufficient excuse for the liberty I have taken to correct the mistake. The Multiflora is an *exotic*, but *this* is a *native* plant, and has been generally called in South Carolina, *non-descript*. It is now more properly known by the name of Cherokee Rose, on account of its being found in the greatest abundance in the tract of country inhabited by the Cherokee Indians. Michlenberg places it in his catalogue of American plants under the name of *Cherokeensis*, without further description. It is an evergreen, and has a stout, running *Caulis*, (stem) which with the *Petioles* is covered with numerous strong, sharp-pointed prickles, (*aculei.*) The leaf consists of three smooth and glossy leaflets, somewhat paler on the under side. The flowers, which make their appearance in April, are composed of five broad, white petals, a thousand stamens with their golden anthers, and an oblong-ovate hispid germ seated upon a short smooth peduncle. It in every respect differs from the beautiful, delicate and ornamental Multiflora; which I would suppose to be altogether unfit for the purpose that this is so admirably calculated to answer. Besides Mr. Rowand, I understand several other gentlemen of Carolina have succeeded in making with this plant, very substantial and impervious hedges, which, for beauty must surpass every thing of the kind known in this country. Its growth is exceedingly rapid and luxuriant in a soil suited to its culture. A loose moist soil with a clay foundation is the one which seems to suit it best. I have not the smallest doubt that it would grow well in Maryland, and the other middle states. If this communication is, in your opinion, calculated to convey to the public a more correct knowledge of this useful plant, and is likely to afford the smallest assistance to those who may wish to make a trial of it, I will thank you to give it a place in your paper.

I am very respectfully,
Your obedient servant,
WM. W. ANDERSON.

FOR THE AMERICAN FARMER.

Cambridge, June 24th, 1820.

DEAR SIR—In compliance with your request to know if I had obtained further knowledge of the insect, which last Summer committed such ravages among my tobacco, and of which I then gave you a description. I have only to say that it has again appeared in my tobacco field, though in small numbers;—I have ascertained that it is the variegated Cassida, an insect usual in the East Indies, and the low latitudes of South America;—but I cannot learn that it has ever before been seen in this country. It is a species of the beetle tribe, and called *Cassida*, or *Tortoise-Beetle*, from a peculiarity of its head being concealed in its thorax, like that of a tortoise. The description which I formerly gave you of this insect, I find to be quite correct, and therefore need not repeat it.

What has given rise to the emigration of this hostile race of beings from their native country, or what has suddenly produced them here, will remain, perhaps for ever, in the long catalogue of "Arcana Naturæ," which the presumption of man so frequently and vainly attempts to explore.

Yours, &c.
JOSEPH E. MUSE.

FOR THE AMERICAN FARMER.

ON PHTHISIS PULMONALIS, OR

Consumption of the Lungs.

By Dr. Eli S. Davis, of Abbeville, (S. C.)

(*Continued from page* 111.)

I believe the decarbonizing function of the lungs is a point conceded on all hands. The lucid experiments of Davy, Seguin, Accum, and others prove the decarbonizing agency of this viscus. The influence that exercise has in the production, augmentation, and discharge of carbon from the lungs in respiration is proved very satisfactorily by Mon. Seguin. In experimenting on himself he found that in a state of rest he consumed 1344 cubic inches of oxygen per hour. But when under the influence of exercise he consumed 3200 cubic inches in one hour; making a difference of 1856 cubic inches more than when in a state of inaction. I repeat it, that in all reflections on pulmonary consumption, the lungs should be the principal object of consideration. They are absolutely the great alchymist of the human system. Their agency in the transmutation of the blood, and their chymical action on the common air, on which the perpetuity of life itself hangs, place their importance in the most commanding and elevated view.

It appears from the experiments of Mons. Seguin that under the influence of exercise the lungs evolve an increased proportion of carbon. This perhaps accounts for the salutary influence of exercise in the cure of consumption. In the 96th page of the first volume of the Physico-Medical Transactions of the city of New York, Dr. Pierson makes the following remarks. "If then a surcharge of carbon follows a protracted and habitual inactivity of body, may we not infer from our knowledge of the consequences of the more obvious retentions of this principle, that a morbid action of the system must result; and that the long train of affections that follow a sedentary life, may be ascribed to this cause? We might mention general debility, dispepsia with its innumerable concomitants, all of which originate in a depressed and enfeebled state of the whole system." It may therefore be safely inferred that the consumption may be produced from a deficiency of oxygen; or in other words from the retention of carbonic acid gas.

Having mentioned some of the causes which induce the disease, I will now proceed to enumerate some of the causes by which a cure is sometimes influenced. National, as well as domestic difficulties, very often produce a cure of this disease when all other remedies have failed. Dr. Rush mentions three cases of pulmonary consumption that were perfectly cured by the diet and hardships of a camp life. I have said that the introduction of luxuries and their consecutive results, together with the changes in society, tend to increase the violence and frequency of this disease. In the second volume, and 62d page of Dr. Rush's Inquiries he states that, the consumption is unknown among the Indians of North America, that it is scarcely known by those citizens of the United States who live in the first stage of civilized life.

During the late war, and whilst with the army on the frontier of Georgia I had an opportunity of witnessing the fact that, while our troops were labouring under the most distressing coughs in the months of February and March, the Indians who had neither clothing or tents, were with a very few exceptions entirely exempt. In a conversation with the late venerable Col. Hawkins, than whom no man better understood the Indian character, and whose long residence among them gave him ample opportunity of marking the nature of the diseases to which they were liable, informed me that he had never heard of an Indian who had died of the consumption of the lungs.

It is certainly less common in country places than in cities. Some writers impute this to the impure state of the air in cities, but I should

really think it safer to refer it to causes more deliterious, namely, intemperance in all the allurements of a city life. So far from believing that the air of a city possesses a latent property capable of producing this disease, I have known patients to visit cities in order to be cured, and to have returned evidently better.

A change of climate often produces the most happy effects in this disease. I have known emigrants from the north who were seriously affected with pulmonary consumption, become perfectly rid of every symptom of the disease in South Carolina and Georgia. Sea voyages and journeys are recommended by most writers.—The latter is very confidently recommended by Dr. Sydenham, as I have before stated. Vomits and nauseating medicines are proper under certain circumstances. Bloodletting and digitales were the favorite remedies of the late Dr. Rush. Vegetable bitters, a plentiful and regular perspiration, blistering, setons and issues are also strongly recommended by him, as well as such exercises and employments as give the greatest vigour to the constitution. Dr. Bennett says that a defluxion on the lungs had often been relieved by salivary evacuations. Dr. Cullen thinks acids of all kinds, as antiseptic and refrigerant are useful in cases of phthisis. But the native acid of vegetables he prefers to the fossil acids, because it can be given in larger quantities. Notwithstanding leanness is considered an almost universal symptom of consumption, yet I have seen cases of its existence in persons whose rotundity of abdomen, and superabundance of fat, rather indicated an excess of ingesta than an approaching dissolution through the medium of phthisis, This Dr. Brown calls a sthenic apyrexia; in which, in consequence of an excess of health, rich living, especially in the article of food, and an easy sedentary way of life, the fat increases so much as to incommode the functions of life.

(*To be continued.*)

FREE TRADE.

The Chamber of Commerce and Manufactures of the city of Edinburgh have presented a petition to the House of Commons against the prohibitory system adopted by Great Britain. They state;

"That the system, so long persevered in, of laying *heavy duties on imports* from foreign countries, tends directly to lessen the demand in those countries for the produce of the industry of our own nation.

"That the doctrine maintained by many statesmen, that, in order to accumulate wealth by trade, a nation must export more than it imports, is erroneous.

"That upon this erroneous doctrine is founded the present commercial policy of this country.

"That it appears to your petitioners, that the sure way to encrease foreign commerce is to encourage the industry of other nations with whom we trade; or, in other words, to enable them to become our customers.

"That, to that end, we should admit, on low terms, the raw produce of other countries, and such articles of commerce as we are precluded from producing by climate or other circumstances.

"That your petitioners consider that the high duties on the Baltic wood and iron, on wines,, and more particularly on French wines, on raw silk, and on many other articles of trade, the produce of foreign countries have directly, or indirectly lessened the demand in those countries for the productions of the realm; for, by checking the industry of those foreign nations, we disable them from being our customers, and we hold out an example to their governments to lay on heavy duties on the manufactures and other exports from the country.

"That it appears to your petitioners, that this system of restrictive commerce has been followed since the peace by the government of almost every nation with which we trade, in strict conformity with the system adopted by Great Britain.

"That whatever may be the perseverance of other nations in this system, the British government should begin a more liberal and wise commercial policy without regard to reciprocity of benefit between us and any particular nation, because by encouraging an increased import from one nation, we are certain of gaining an increased export directly to that nation, or intermediately to some other nation.

"That it appears to your petitioners, that such a liberal system of commercial policy, which is thus humbly submitted to the consideration of the honourable house, would produce a greater revenue, from the increased quantity of imports, although subject only to low duties; and at the same time would promote national industry, as a consequence of a proportional increase of exports."

There is so much plausibility in these succinct but pregnant statements, that we ought to weigh well before we abandon the principles on which they are founded. It is really singular, that, just as the practical men of London and Edinburgh are about abandoning the restrictive system, we should fall into it. Why is this? Let us *look well before we leap.*—[*Compiler.*

The Governor of Massachusetts in his speech to the legislature, maintains the doctrine of free trade, and directly deprecates the proposed *tariff.*

"Hitherto conformable to the genius and maxims of free republican governments, all the departments of industry have been equally protected by the laws. The destination of labour and capital have been controlled by the option of individuals; and in this freedom of choice our liberty greatly consists, We are characterised by no Asiatic casts, nor degraded into villainage by the tyranny of feudal laws, but the citizens of our Republic, having equal constitutional rights, are entitled to equal protection in the pursuit of happiness." "Excessive restrictions on trade, lessen the amount of imports and induce a resort to direct taxes; which the people will be the less able to pay, as the products of agriculture shall be reduced in value by the diminution of commerce."

The *answer* of the H. of R. re-echoes these sentiments in a still louder strain; They contend, that,

"The fundamental principles of a republic and sound policy in all governments require them to leave industry unshackled, by giving equal protection to every pursuit and permanent and exclusive privileges to none.

The new house of Commons appears, in some degree, to be formed of an odd compound of professions, beasts, birds and lifeless things; as there are returned to it—*six Smiths, two Coopers, two Taylors,* a *plumber,* a *Carter,* a *Monk,* a *Chaplin,* a *Clark,* a *Butler.* a *Wildman,* a *Childe,* and a *King;* a *Fox,* a *Lamb,* a *Hare,* a *Hart,* and a *Ramsbottom;* a *Drake, Cocks,* a *Swan,* a *Martin,* and a *Crickett;* a *Wood,* a *Temple,* a *Bankes,* a *Milbank.* a *Pitt,* a *Coffin, Wells, Bridges,* a *Cherry,* a *Rose,* a *Fife,* a *Pole,* a *Legge,* a *Wall, Rice, Coke, Brick* and *Fellows;* and after a severe *Winter,* a *Mildmay.*

To make a liquid for staining bone or wood of different colours.

Take strong white wine vinegar in a glass vessel, and put to it the filings of copper, with some Roman vitriol, rock allum, and verdigrise, and leave it thus infused for seven days: then boil it in some vessel; and by putting into it bone, ivory or wood, it will penetrate and give it a green colour. If any other colour is required, as red, blue or yellow, put Brazil wood, indigo, French berries, or any other such colours, to infuse in the vinegar, with a little rock allum

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FOR THE AMERICAN FARMER.

EPITAPH.

Elegiac Epitaph on a Yellow Bird, who fell on his first essay to fly, and was instantly killed by an old hen near him. A gentleman present covered him up under a sod and stones, and gave the following Impromptu to the ladies present, who did not seem to like it for some reasons best known to themselves.

Beneath these Stones,
repose the Bones
of poor little Flave.
He could not fly,
and yet his better part hath fled and gone,
and lo! his beauty too,
To where, nor Hens, nor Termagants can come,
He died by one Hen pecking,
whilst I am doomed to bear severer fate,
and feel a thousand pecks upon my pate.

THE CHRISTENING.

Bonum nomen,
Bonum omen.

A hundred names were soon propos'd,
But every one the Wife oppos'd;
No tongue could e'er run faster;
"Well *Peter*, then," the Husband cried;
"What! *Peter?*" the good Dame replied;
"No! *he* denied his *Master!*"
"Through all the list," said he, "I've run,
"And know not then, what's to be done.
"To close this sad distress;
"Suppose my dear, he's *Joseph* call'd?"
"No, never, no!" she loudly bawl'd,
"For *he* denied his *Mistress!*

CURE FOR TROUBLE,

By S. Osborne.

Ben Brisk a philosopher was,
In the genuine sense of the word;
And he held that repining, whatever the cause,
Was unmanly, and weak, and absurd.

Tom Tipple, when trouble intruded,
And his fortune and credit were sunk,
By a too common error deluded,
Drown'd trouble, and made himself drunk.

But Ben had a way of his own,
When grievances made him uneasy;
He bade the blue devils begone!
Brav'd trouble, and made himself—BUSY.

When sorrow embitters our days,
And poisons each source of enjoyment,
The surest specific, he says,
For trouble and grief, is—EMPLOYMENT.

THE FARMER.

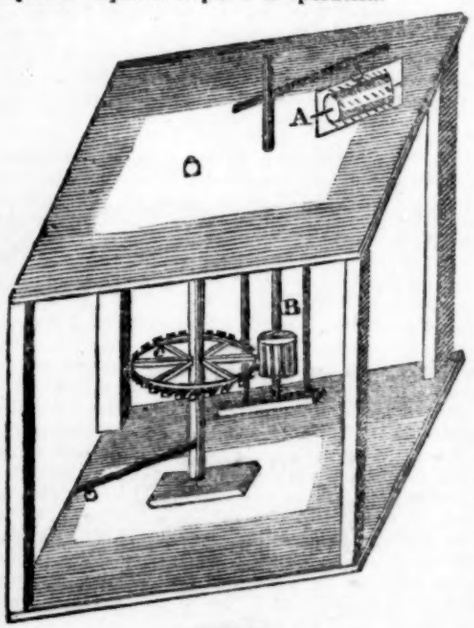
BALTIMORE, FRIDAY, JULY 7, 1820.

RANSONE'S THRESHING MACHINE.

On the day the last paper went to press, the Editor was out of town and did not discover until it was too late to rectify the mistake, that the following engraving of the Threshing Machine, was omitted—It ought to have accompanied the letter signed Augustus M. Hicks, to whose kindness we are indebted for the drawing.

Of this same machine, S. S. Griffin, Esq. in a letter to the Editor, dated York-Town, Va. January 9th, 1820, speaks in these terms:

"A Threshing Machine upon a plan entirely new and extremely simple, has lately been constructed by Mr. William Ransone of Matthews County, Va. for which he has just obtained a patent. It is said to be extremely valuable, not only on account of its almost incredible execution, both as to despatch and the complete separation of the grain from the straw, but also on account of the ease with which it may be repaired, and the comparatively small degree of animal power requisite to put it in operation."



EXTRACT TO THE EDITOR.

Philadelphia, June 20, 1820.

Twelve hundred bushels North Carolina wheat arrived here this week, never before seen in Philadelphia. It must have been good and clean, for it brought 15-16ths of a dollar cash.

☞EDITORIAL ENGAGEMENT EXPLAINED—The greater number of our subscribers, have closed with the proposal to have the actual receipt of each number of their paper *guaranteed*. It is therefore proper now to make it known to them, that in writing for missing numbers, they will be expected to aver distinctly that the number or numbers called for, were never received. It cannot be expected of the Editor, that he should resupply his subscribers with such papers as they may have lost or permitted to be destroyed. He has no printing office, nor any concern in or knowledge of the printing business. —The Farmer is put out to be printed—and each number therefore, costs a specific sum to the Editor. Every subscriber, whose paper does not come to hand in due course of mail, is requested to wait the arrival of another mail, and if not then received, we shall expect to be *immediately apprised* of it.

THE CAUSE OF THE PLOUGH,

Or further reflections drawn from reading an account of the last Holkham Sheep Shearing.

Omnium rerum exquibus aliquid exquiritur nihil est agricultura melius, uberius, homine liboro dignius.

CICERO.

Our travelling citizens will do very well to procure in England the various pamphlets, written by Mr. Blake, the Steward of Thomas William Coke, Esq. of Norfolk, G. B., which gave a clear and full account of the methods of farming pursued by Mr. Coke, and his most successful tenants on his estates in Holkham, and in its neighbourhood. One of these, on the management of farm-yard manure, together with the pamphlet which gave rise to these reflections, was kindly placed at our service by General Harper, along with some other agricultural tracts, collected by him on his late tour in Europe. The means by which gravelly and other poor lands, without a sward, and producing no wheat, have been brought by Mr. Coke to yield 42 bushels of wheat, and 65 bushels of oats per acre, and to be covered, in parts, with a fine grass turf of the best condition are well worthy of the attention of the practical American farmer. The Scotch method of cultivating turnips, according to the ridge system, appears to have received the decided approbation of Mr. Coke, after visiting Scotland and making experiments on his own lands. He believes it to be the best mode of producing *large* and *certain* crops.

Great Britain is taking lessons from us in the use of *Gypsum*, with which, in 1817, the English farmers were very little acquainted!

In Liverpool G. B, it will be easy to procure accounts of the proceedings and management of G. Wilbraham, Esq. of Cheshire, (the next county to Lancashire) who, though now alive and active, is called the father of the *Cheshire* husbandry. The cultivation of mangel wurtzel by Dr. Edward Rigby may be procured at Norwich.

It appears to be the opinion of Mr. Coke, that the good effects of salt, as a manure are very doubtful.—He is satisfied, that it is serviceable to cattle. The duty in England is stated to be so high, as to constitute an objection to the agricultural use of salt.

It is distinctly stated, that at the meeting of the London Horticultural Society, (whose publications are well worthy of our purchase) specimens of roots of the mangel wurtzel were produced, yielding sixty tons weight per acre; and that a Mr. Jenkins, in 1816, produced for government, from nine acres, in the Prince Regent's Park, a crop of mangel wurtzel, that cleared a profit, after all expenses of 600*l.* sterling 2666 and 2-3 dollars. Mr. Perry, the intelligent Editor of the London Morning Chronicle, observes, that the keepers of cows there use the leaves of the mangel wurtzel, with great benefit in the beginning of November, and the roots during the winter, as profitable nourishment for their milch cattle.

There appears to be a great deal of question among the English farmers on the subject of the *merino* and the English *South down* (Sussex, &c.) breeds of sheep. Mr. Coke is a decided *anti-merino* man. He objects to "their small and bad carcasses, "backs as narrow as rabbits, and generally, incorri-"gible faults." Mr. Coke considers it very rare that a good carcass is supported under ten or twelve pounds of such close and fine wool; and concludes with the remark, that he has long been convinced, that "good carcasses and fine fleeces together, early "maturity and a quick return, which they have in "*South down* sheep, will always beat the merinos." There are no manufactures in Mr. Coke's part of Norfolk, nor any idle hands: no poor, but the aged decrepit and infirm.—No public poor-house. The helpless, as above are boarded, or pensioned, at little expense.

One of the greatest comforts and improvements in modern husbandry is in the increase of milk, butter, cheese, poultry, fruit and garden and field vegetables for men and other animals. The European books upon the dairy, gardening, the poultry yard, grasses, farmers vegetables, and irrigation are invaluable to us. Upper Italy (Piedmont, Lombardy, &c.) are perfect in irrigation.

In the range of subjects, which occurred at Mr. Coke's *fete*, it does not appear that the heavy fleeced, long woolled large Lincolnshire breed of sheep was noticed though Lincoln joins Norfolk and has considerable reclaimed and unreclaimed meadows. It appears to be a reasonable modern opinion, that the sheep called the *Lincoln* breed, are produced in their size, carcass, quantity and quality of wool *by feeding upon wet and marshy meadow lands and grasses*, like all those of the districts famous for these sheep; such as the reclaimed or drained meadows of Lincolnshire, Romney-Marsh, Teeswater, &c. It does not appear, that the curious mixed breed called the *Bakewell* or *Dishley* or *Leicester* breed, in which flesh, quantity and improved wool for the comb are obtained, was noticed at the meeting at Holkham. These two descriptions of wool with their heavy carcasses of mutton, would be valuable in our country. But the late high prices of pork and beef and Indian corn have rendered them better objects for the farmer than sheep. To this and to the substitution and mixtures of cotton and not to the destruction of sheep, is our slow progress in sheep farming principally ascribable. The reductions, which have occurred in the prices of beef and pork will occasion a less forced production of them, and mutton will resume its real natural proportionate value occasioning more sheep to be raised than within the last four or five years. The turnip culture, which suits our middle, northern and eastern states, will greatly facilitate this branch of husbandry.

It has appeared well worth the time to submit the remarks to the public, which arise on a cursory perusal of Dr. Rigby's account of Mr. Coke's annual sheep-shearing with some collateral observations, which present themselves at the same time. Americans are generally entertained on those occasions, and our practices in husbandry are noticed, though our great surplus of agricultural productions consists of things, which the climate of the United Kingdoms does not admit: sugar; cotton; rice; and indigo; or of those things which like tobacco, and pot ashes and hemp they do not raise, or make for sale. *Whatever men are doing in agriculture* from our river St. Croix to the coasts of the gulf of Mexico, or in any foreign country, is worthy of our attention: worthy of our consideration: worthy of being compared with our own course of practice and experience.

Present Prices of Country Produce in this Market.

Actual sales of WHEAT—WHITE, 95 cts. —RED, 85 to 90 cts.—CORN, 45 to 48 cts.—RYE, 52 to 55 cts.—OATS, 33 cts.—HAY, per ton $16—STRAW, do. $8—FLOUR from the wagons, $4 50—WHISKEY, from do. 32 to 33 cts.—BUTTER, pr. lb. 20 cts.—EGGS, pr. doz. 18 cts.—LAMB, per lb. 5 to 7 cts.—VEAL, per lb. 7 to 8 cts.—MUTTON, 6 to 8 cts.—Live CATTLE, $5 50 to $7.—PORK, per lb. 6 to 8 cts—HAMS, 10 to 14 cts.—PEAS, 12½ cts.—New POTATOES, per bushel, 50 cts.—BEEF, 12½ cts.—CHICKENS, per doz. $2 50 to $2 75—Maryland TOBACCO, 4 hhds. Herring Bay, at $8 and $12—Two do. at $13. No sales of Virginia TOBACCO, since last report—North Carolina produce, no variation from last prices.

BALTIMORE,

PUBLISHED EVERY FRIDAY,

BY JOHN S. SKINNER, EDITOR.